



Water-Data Report 2008

**01411955 GRAVELLY RUN AT LAUREL LAKE, NJ**

MAURICE RIVER BASIN

LOCATION.--Lat 39°20'14", long 75°03'03" referenced to North American Datum of 1983, Commercial Township, Cumberland County, NJ, Hydrologic Unit 02040206, at culvert on Battle Lane, 0.3 mi upstream from mouth and Buckshutem Creek, 1.1 mi west of community of Laurel Lake, and 2.5 mi southeast of Millville Municipal Airport.

DRAINAGE AREA.--3.19 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1998 to current year.

GAGE.--Staff gage.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Date	Discharge, in ft <sup>3</sup> /s
Nov 27, 2007	0.75
Feb 6, 2008	1.76
May 29, 2008	1.31
Sep 2, 2008	0.34

**01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Background and Low Level Mercury Assessment special study site, NJ Department of Environmental Protection Watershed Management Area 17. The samples on Nov 23 and Mar 18 were for the Low Level Mercury Assessment.

COOPERATION.--Physical measurements and samples for laboratory analysis on Nov 23 and Mar 18 were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 5

[QC, quality control sample. Remark codes: &lt;, less than; E, estimated.]

Date	Time	Sample medium and type	Turbidity	UV	UV	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
			Instan- taneous dis- charge, ft <sup>3</sup> /s (00061)	Tur- bidity light, det ang 90+/-30 corrcrd	absorb- ance, 254 nm, wat flt units			
Nov								
23...	0920	QC - Artificial, field blank	--	--	--	--	--	--
23...	0930	Surface water, regular	--	.6	--	--	766	7.0
27...	1115	Surface water, regular	.75	.5	.133	.108	767	8.2
Feb								
06...	1030	Surface water, regular	1.8	1.2	.160	.125	750	9.3
Mar								
18...	0927	QC - Artificial, field blank	--	--	--	--	--	--
18...	0950	Surface water, regular	--	.5	--	--	775	7.9
May								
29...	1255	Surface water, regular	1.3	13	.144	.114	767	9.4
Sep								
02...	0940	Surface water, regular	.34	1.5	.102	.084	757	6.9

## 01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 2 of 5

[QC, quality control sample. Remark codes: &lt;, less than; E, estimated.]

Date	Specif-										ANC,		
	pH, water, unfltrd field, std units (00400)	conduc- tance, wat unf μS/cm (00095)	Temper- ature, air, deg C (25 degC)	Temper- ature, water, deg C (00020)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, filtrd, mg/L (00900)	Magnes- ium, water, filtrd, mg/L (00915)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L as SiO2 (00955)
Nov													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	5.2	30	4.0	9.2	--	--	--	--	--	--	--	--	--
27...	4.9	30	10.0	11.7	4	.68	.605	.52	2.63	<1.7	4.98	<.12	7.7
Feb													
06...	4.5	39	18.0	10.5	4	.72	.572	.44	2.70	<1.7	5.20	<.12	6.5
Mar													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	4.7	41	4.5	7.3	--	--	--	--	--	--	--	--	--
May													
29...	4.5	30	24.0	13.1	3	.43	.498	.35	2.54	<1.7	4.83	<.12	5.0
Sep													
02...	5.1	24	--	15.4	4	.59	.540	.46	2.20	<1.7	3.88	<.12	7.4

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 3 of 5

[QC, quality control sample. Remark codes: &lt;, less than; E, estimated.]

Date	Residue on evap.	Residue at 180degC	Ammonia		Nitrate	Partic- ulate	Total	Total	Ortho- phosphate	Phos- phorus,	Phos- phorus,	Total	
	Sulfate water, filtrd, mg/L (00945)	180degC wat flt mg/L (70300)	total non- filter- able, mg/L (00530)	+ org-N, water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	+ nitrite water, filtrd, mg/L as N (00631)	+ nitro- gen, susp, water, filtrd, mg/L (49570)	nitro- gen, water, filtrd, mg/L (00602)	nitro- gen, water, unfltrd (00600)	water, filtrd, mg/L as P (00671)	water, filtrd, mg/L as P (00666)	water, unfltrd mg/L as P (00665)	susnd sedimnt mg/L (00694)
Nov													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	2.32	28	<1	E.11	.027	.10	<.04	E.21	--	E.004	<.008	E.005	.2
Feb													
06...	4.04	31	1	E.11	E.008	.11	<.04	E.22	--	<.010	<.008	<.008	.1
Mar													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
May													
29...	2.03	26	46	E.12	E.004	.08	1.74	E.20	E1.9	E.003	<.008	.039	28.7
Sep													
02...	1.53	19	2	E.12	.030	.20	.04	E.32	E.36	E.003	E.005	E.007	.7

## 01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 4 of 5

[QC, quality control sample. Remark codes: &lt;, less than; E, estimated.]

Date	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, μg/L (01000)	Arsenic water, unfltrd, μg/L (01002)	Barium, water, unfltrd recover -able, μg/L (01007)	Beryll- ium, water, unfltrd recover -able, μg/L (01012)	Boron, water, unfltrd recover -able, μg/L (01020)	Boron, water, unfltrd recover -able, μg/L (01022)	Cadmium water, unfltrd recover -able, μg/L (01027)	Chrom- ium, water, unfltrd recover -able, μg/L (01034)	Copper, water, unfltrd recover -able, μg/L (01042)	Iron, water, unfltrd recover -able, μg/L (01045)
<b>Nov</b>													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<.04	.2	2.9	--	--	--	--	10	--	--	--	--	--
<b>Feb</b>													
06...	<.04	.1	4.2	.08	<.60	24.6	.10	9.5	9	.03	<.40	<1.2	94
<b>Mar</b>													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>May</b>													
29...	<.04	28.7	3.3	--	--	--	--	12	--	--	--	--	--
<b>Sep</b>													
02...	<.04	.7	2.0	E.06	<.60	14.5	E.03	9.3	E8	<.01	<.40	1.3	142

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 5 of 5

[QC, quality control sample. Remark codes: &lt;, less than; E, estimated.]

Date	Mangan- ese, water, unfltrd recover -able, μg/L (01051)	Lead, water, unfltrd recover -able, μg/L (01055)	Mercury water, unfltrd recover -able, μg/L (50286)	Mercury water, unfltrd, low level ng/L (71900)	Nickel, water, unfltrd recover -able, μg/L (01067)	Selen- ium, water, unfltrd recover -able, μg/L (01147)	Silver, water, unfltrd recover -able, μg/L (01077)	Zinc, water, unfltrd recover -able, μg/L (01092)	Methyl- mercury water, unfltrd, low level ng/L (50284)
<b>Nov</b>									
23...	--	--	.10	--	--	--	--	--	<.04
23...	--	--	1.11	--	--	--	--	--	.11
27...	--	--	--	--	--	--	--	--	--
<b>Feb</b>									
06...	.80	6.2	--	<.010	.66	.08	<.02	3.5	--
<b>Mar</b>									
18...	--	--	.05	--	--	--	--	--	<.04
18...	--	--	1.35	--	--	--	--	--	E.05
<b>May</b>									
29...	--	--	--	--	--	--	--	--	--
<b>Sep</b>									
02...	.71	2.7	--	<.010	.50	<.08	<.02	9.8	--

## 01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 7

[Remark codes: &lt;, less than.]

Date	1-Naph-thol, water, 0.7u GF μg/L (49295)	2,6-Di-ethyl-aniline, water, 0.7u GF μg/L (82660)	2Chloro- -2',6'-diethyl acetanilide wat flt	CIAT, water, fltrd, μg/L (04040)	2-Ethyl- -6-methyl-chloro-aniline water, fltrd, μg/L (61620)	3,4-Di-chloro-aniline water, fltrd, μg/L (61625)	3,5-Di-chloro-aniline water, fltrd, μg/L (61627)	4-Chloro- 2methyl-phenol, water, fltrd, μg/L (61633)	Aceto-chlor, water, fltrd, μg/L (49260)	Ala-chlor, water, fltrd, μg/L (46342)	alpha-Endo-sulfan, water, fltrd, μg/L (34362)	Atra-zine, water, fltrd, μg/L (39632)	Azin-phos-methyl oxon, water, fltrd, μg/L (61635)
May 29...	<.04	<.006	<.010	<.014	<.010	<.006	<.008	<.005	<.006	<.006	<.006	<.007	<.04

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 2 of 7

[Remark codes: &lt;, less than.]

Date	Azin-phos-methyl, water, 0.7u GF μg/L (82686)	Ben-flur-alin, water, 0.7u GF μg/L (82673)	Car-baryl, water, fltrd, 0.7u GF μg/L (82680)	Carbo-furan, water, fltrd, 0.7u GF μg/L (82674)	Chlor-pyrifos oxon, water, fltrd, 0.7u GF μg/L (61636)	Chlor-pyrifos water, fltrd, 0.7u GF μg/L (38933)	cis-Per-methrin water, fltrd, 0.7u GF μg/L (82687)	cis-Propi-conazole water, fltrd, 0.7u GF μg/L (79846)	Cyana-zine, water, fltrd, 0.7u GF μg/L (04041)	Cyflu-thrin, water, fltrd, 0.7u GF μg/L (61585)	lambda-Cyhalothrin, water, fltrd, 0.7u GF μg/L (61595)	Cyper-methrin water, fltrd, 0.7u GF μg/L (61586)	DCPA, water, fltrd, 0.7u GF μg/L (82682)
May 29...	<.120	<.010	<.060	<.020	<.06	<.005	<.010	<.006	<.020	<.016	<.004	<.014	<.003

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 3 of 7

[Remark codes: &lt;, less than.]

Date	Desulf- inylfipro- nil, water, fltrd, μg/L (62170)	Diazi-non, water, fltrd, μg/L (39572)	Dicro-tophos, water, fltrd, μg/L (38454)	Diel-drin, water, fltrd, μg/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF μg/L (82662)	Disulf- oton, water, fltrd, 0.7u GF μg/L (61640)	Disul- foton, water, fltrd, 0.7u GF μg/L (82677)	Endo- sulfan, water, fltrd, 0.7u GF μg/L (61590)	EPTC, water, fltrd, 0.7u GF μg/L (82668)	Ethion, water, fltrd, 0.7u GF μg/L (61644)	Ethion, water, fltrd, 0.7u GF μg/L (82346)	Etho-prop, water, fltrd, 0.7u GF μg/L (82672)	Fenami-phos- sulfone, water, fltrd, μg/L (61645)
May 29...	<.012	<.005	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.006	<.012	<.053

## 01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 4 of 7

[Remark codes: &lt;, less than.]

Date	Fenami-phos sulf-oxide, water, fltrd, μg/L (61646)	Fenami-phos, water, fltrd, μg/L (61591)	Desulf-inyl-fipro-nil Fipro-sulfide nil water, wat flt μg/L (62169)	Fipro-nil Fipro-sulfone nil water, fltrd, μg/L (62167)	Fipro-nil Fipro-sulfone nil water, fltrd, μg/L (62168)	Fipro-nil Fipro-sulfone nil water, fltrd, μg/L (62166)	Fonofos Hexa-zinone, water, fltrd, μg/L (04095)	Ipro-dione, water, fltrd, μg/L (04025)	Isofen-phos, water, fltrd, μg/L (61593)	Mala-oxon, water, fltrd, μg/L (61652)	Mala-thion, water, fltrd, μg/L (39532)	Meta-laxyl, water, fltrd, μg/L (61596)	
May 29...	<.20	<.03	<.029	<.013	<.024	<.020	<.010	<.008	<.01	<.006	<.020	<.016	<.007

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 5 of 7

[Remark codes: &lt;, less than.]

Date	Methid-athon, water, fltrd, μg/L (61598)	Methyl para-thion, water, fltrd, μg/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF (82667)	Metola-chlor, water, fltrd, μg/L (39415)	Metri-buzin, water, fltrd, μg/L (82630)	Moli-nate, water, fltrd, 0.7u GF (82671)	Myclo-butanol water, fltrd, μg/L (61599)	Oxy-fluor-fen, water, fltrd, μg/L (61600)	Pendi-meth-alin, water, fltrd, 0.7u GF (82683)	Phorate oxon, water, fltrd, μg/L (61666)	Phorate water, fltrd, 0.7u GF (82664)	Phosmet oxon, water, fltrd, μg/L (61668)	Phosmet water, fltrd, μg/L (61601)
May 29...	<.004	<.01	<.008	<.010	<.012	<.003	<.010	<.006	<.012	<.03	<.040	<.05	<.008

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 6 of 7

[Remark codes: &lt;, less than.]

Date	Prome-ton, water, fltrd, μg/L (04037)	Prome-tryn, water, fltrd, μg/L (04036)	Propy-zamide, water, fltrd, 0.7u GF (82676)	Propy-zamide, water, fltrd, 0.7u GF (82679)	Propanil, water, fltrd 0.7u GF	Propar-gite, water, fltrd 0.7u GF	Simazine, water, fltrd 0.7u GF	Tebu-thiuron water, fltrd 0.7u GF	Teflu-thrin, water, fltrd 0.7u GF	Terbufos sulfone water, fltrd 0.7u GF	Terbu-fos, water, fltrd 0.7u GF	Terbutyl-azine, water, fltrd 0.7u GF	Thio-bencarb water, fltrd 0.7u GF	Propi-conazole, water, fltrd μg/L (79847)
May 29...	<.01	<.006	<.004	<.006	<.04	<.006	<.02	<.003	<.04	<.04	<.02	<.01	<.010	<.02

**01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued****WATER-QUALITY DATA  
WATER YEAR OCTOBER 2007 TO  
SEPTEMBER 2008**

Part 7 of 7

[Remark codes: &lt;, less than.]

Date	Tribu- phos, water, filtrd,	Tri- flur- alin, water, filtrd, 0.7u GF	Di- chlor- vos, water, filtrd,
	µg/L (61610)	µg/L (82661)	µg/L (38775)
<b>May 29...</b>	<.035	<.009	<.01